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10/815,113

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04/07/2008

EXAMINER

PADEN, CAROLYN A

ART UNIT

PAPER NUMBER

1794

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/815,113 | <b>Applicant(s)</b><br>CHAMI ET AL. |  |
|                              | <b>Examiner</b><br>Carolyn A. Paden  | <b>Art Unit</b><br>1794             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 25, 2008 has been entered.

Claim 1, 3 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The characterization of the product of claim 1 as being "fictionally superior" to the prior art is not seen to add any patentable weight to the claims.

Claim 3 is not identified.

Claim 20 is unclear because it attempts to define the shortening by referring to the specification. An amendment to the claims adding the critical characteristics of the shortening into the claim would overcome the rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khattoon taken with Majumdar in view of Schijf taken with Gunstone for reasons of record and/or Schijf taken with Gunstone in view of Khattoon taken with Majumdar.

Khattoon discloses the interesterification of palm oil with rice bran oil in Table 2 by using sodium methoxide as a catalyst (see abstract). The process of interesterification is disclosed on pages 83-84 of the article as a chemical reaction accomplished with heat, mixing and vacuum. Then the catalyst, sodium methoxide, is worked with hot water and dried in a vacuum. Then margarine is made. The product is described as having fat crystallization characteristics like butter. Majumdar discloses the interesterification of palm stearin with vegetable oils; especially rice bran oil in Table II. The interesterification process is shown on page 235 in column 2. The process includes sodium methoxide catalyst. Then the catalyst is destroyed by adding hot water, the product is washing and undergoes

steam distillation under high vacuum. Khattoon with taken with Majumdar teach that the process of interesterifying two oils is known in the art as a way to prepare margarine. The claims appear to differ from Khattoon taken with Majumdar in the use of a crystallizer. Schijf is relied upon to show that it is known in the art to interesterify fats in the presence of a catalyst with heat and vacuum, inactivate the catalyst with water, dry and deodorize the fat (column 5, lines 11-16) and then make margarine from the fat in a Votator. Gunstone is relied upon to describe the votator as a scraped surface heat exchanger that is used to solidify and plasticize fats in the manufacture of shortening and margarine (last paragraph on page 149, figure 18.1 and "blending and chilling" paragraph on page 153. The chilling conditions for the Votator are described on page 150. So even though "margarine crystallizer" is not specifically mentioned, it is clear from the description of the Votator in Schijf and Gunstone that the Votator functions as a margarine crystallizer. It is appreciated that the settings for the feed rate, backpressure and mutator are not described but the processing conditions would have been expected to depend from the particular processing apparatus used in the margarine manufacture. Tempering of shortening is described on page 150. The concept of "tubbing" margarine

is described in Tables 18.2 and 18.3. Even though tubbed shortening is not mentioned, it would have been obvious to put shortening in a tub to provide a consumer suitable product size. It is appreciated that the tocol, oryzanol and phytosterol content of the spread is not mentioned but rice bran oil is known to be enriched with these particular ingredients. Further it would have been obvious to fortify shortening with tocol, oryzanol and phytosterols to enhance the stability and health benefits of shortening. The lack of trans in the shortening would have been the obvious result of the use of a process that did not include complete hydrogenation.

Applicant argues that Khattoon does not show that the combination of palm oil or palm stearin and rice bran oil would produce margarine. This has been considered but is not persuasive because Khattoon is not the only reference relied on is this rejection. Khattoon is taken with Majumdar to show that chemical interesterification of palm oil sources with rice bran oil is known in the art for margarine preparation. The claims are further rejected in view of Gunstone taken with Schijf.

Applicant argues that the reference to Gunstone and Schijf are irrelevant because they do not overcome Khattoon and Majumdar. This has been considered but is not persuasive. It is clear from Gunstone that

multiple combinations of fats are known in the art of shortening and margarine manufacture to create a desired shortening. The fact that palm source fats may not have the desired melting characteristics does not overcome the rejection. One of ordinary skill in the art would be expected to blend the oils of the Gunstone to achieve a desired shortening.

Schijf discloses a process for interesterifying fats. The process involves interesterifying fats, inactivating the catalyst with water, drying and deodorizing the fat. Then make margarine from the fat in a Votator.

Gunstone is relied upon to describe the votator as a scraped surface heat exchanger that is used to solidify and plasticize fats in the manufacture of shortening and margarine (last paragraph on page 149, figure 18.1 and “blending and chilling” paragraph on page 153. The chilling conditions for the Votator are described on page 150. The claims appear to differ from Schijf taken with Gunstone in the processing of the particular fats of the claims. Khattoon teaches the interesterification of palm oil with rice bran oil in Table 2 by using sodium methoxide as a catalyst (see abstract). The process of interesterification is disclosed on pages 33-34 of the article. The margarine is made. The product is described as having fat crystallization characteristics like butter. Majumdar teaches the interesterification of palm

stearin with vegetable oils; especially rice bran oil in Table II. The interesterification process is shown on page 235 in column 2. The process includes sodium methoxide catalyst. Then the catalyst is destroyed by adding hot water, the product is washed and undergoes steam distillation under high vacuum. Khattoon with taken with Majumdar teach that the process of interesterifying two oils is known in the art as a way to prepare margarine. Given the teaching of Majumdar and Khattoon to the interesterification of palm or palm stearin with rice bran oil, it would have been obvious to utilize the process of Schijf and Gunstone to process the oils of Majumdar and Khattoon. So even though "margarine crystallizer" is not specifically mentioned, it is clear from the description of the Votator in Schijf and Gunstone that the Votator functions as a margarine crystallizer. It is appreciated that the settings of the feed rate, backpressure, and mutator speed are not described but the conditions would have been expected to depend from the particular processing apparatus used in the margarine manufacture. Tempering of shortening is described on page 150 of Gunstone. The concept of "tubbing" margarine is described in Tables 18.2 and 18.3 of Gunstone. Even though tubbed shortening is not mentioned, it would have been obvious to put shortening in a tub to provide



a consumer suitable product size. It is appreciated that the tocol, oryzanol and phytosterol content of the spread is not mentioned but rice bran oil is known to be enriched with these particular ingredients. Further it would have been obvious to fortify shortening with tocol, oryzanol and phytosterols to enhance the stability and health benefits of shortening. The lack of trans in the shortening would have been the obvious result of the use of a process that did not include complete hydrogenation.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khatton taken with Majumdar in view of Schijf taken with Gunstone, as applied to claims 1 and 6-20 above, and further in view of Baileys in combination with Nakhashi for reasons of record.

The claims appear to differ from Majumdar taken with Khatoon in view of Schijf taken with Gunstone in the recitation of the specific treatment conditions of interesterification. Baileys teaches on page 148, first full paragraph, that any of a variety of treatment conditions will result in the interesterification of fats. But if a specific process is required, Nakhashi provides such a teaching in example 1. It would have been obvious at the time of applicants' invention to optimize the interesterification process of according to Majumdar taken with Khattoon using the process conditions of

Nakhashi as one of many optional interesterification processes available and according to individual preferences.

Applicants' arguments are directed to the rejection of claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn A Paden whose telephone number is (571) 272-1403. The examiner can normally be reached on Monday to Friday from 7 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached by dialing 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Carolyn Paden/

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